

Odor Control Program

The RWSP includes policies to guide King County in achieving its goal of preventing and controlling nuisance odor occurrences at all wastewater treatment plants and associated conveyance facilities. The policies also call for implementation of an odor prevention program that goes beyond traditional odor control.

The RWSP reporting requirements call for an annual report on the status of the odor prevention policies and projects, including a summary of odor complaints. This chapter meets those reporting requirements. The summary of odor complaints is provided as Appendix B.

This chapter presents activities completed in 2005 to implement odor control improvements at the West Point and South Treatment plants. It then describes the odor control improvements planned for conveyance system facilities and the odor control design planned for the Brightwater System. The last section of the chapter describes the odor control activities planned for 2006.

7.1 Phased Retrofit of the West Point and South Plants

The RWSP odor control policies, as established via Ordinance 14712, require implementation of phased improvements at the West Point and South Treatment plants to control the most significant potential odor sources first. To that end, the Wastewater Treatment Division (WTD) has undertaken projects at each plant to identify and implement changes to existing odor control systems and to install new systems.

At the West Point Plant, design on improvements to the existing odor scrubber system is complete and modifications are expected to be substantially complete by the end of 2006. Changes to the division channel ventilation system were also designed and completed in 2005.

At the South Plant, WTD has completed final design of covers for each first pass of the four aeration basins and of covers for the return activated sludge channel. Installation of the covers will begin in 2006 and is expected to be complete in mid-2007. Because the aeration basins need to be taken out of service while the covers are installed, delays in the project schedule are possible. The amount of time that the aeration basins can be offline depends on wet-weather flow volumes.

7.2 Conveyance System Upgrades

RWSP policies call for conveyance facilities that pose nuisance odor problems to be retrofitted with odor prevention systems as soon as such odors occur, subject to technical and financial feasibility. As shown in Table 7-1, several projects are under way to improve odor problems in the conveyance system. The type of control technology and the anticipated completion dates are also provided.

Table 7-1. Conveyance System Upgrades with Odor Control Components

Facility	Odor Control Technology	Anticipated Completion Date
Hidden Lake Pump Station	Carbon bed odor scrubber & chemical injection	4th quarter 2008
Kenmore Lakeline	Carbon bed odor scrubber & chemical injection	4th quarter 2008
Lake City Regulator Station	Replacement of phoenix/carbon scrubber with bioscrubber	4th quarter 2009
University Regulator Station	Carbon bed odor scrubber	3rd quarter 2007
Interbay Pump Station	Carbon bed odor scrubber	4th quarter 2010
King Street Regulator Station Odor Control	Carbon bed odor scrubber	4th quarter 2008
53rd Avenue Pump Station	Carbon bed odor scrubber	3rd quarter 2008
Juanita Bay Pump Station	Carbon bed odor scrubber & chemical injection	2nd quarter 2008
Kirkland Pump Station	Carbon bed odor scrubber	4th quarter 2009
Bellevue Pump Station	Carbon bed odor scrubber & chemical injection	4th quarter 2008
Eastside Interceptor	Chemical (nitrate) injection	4th quarter 2007
Soos Creek Pump Station & Pipeline	Carbon bed odor scrubber & chemical injection	4th quarter 2020

7.3 Brightwater Odor Control System Design

The Brightwater System will incorporate odor control systems based on proven technologies that will comply with the High/New Plant odor prevention level referenced in Attachment A of Ordinance 14712. Pilot studies at the South Treatment Plant were conducted to test the feasibility of using biologically based odor scrubbers in lieu of some the chemical scrubbers originally envisioned for the Brightwater odor control systems. Testing showed that the same level of odor control could be attained more economically if biological scrubbers were to replace two of the three chemical scrubber stages originally designed. The final odor control system design includes biological, chemical, and carbon odor scrubber stages that meet the goal of no odors at the property line and the other requirements contained in Ordinance 14712.

7.4 Schedule for 2006

WTD will continue to implement odor control improvements in accordance with RWSP policies. The following activities are planned for 2006:

- Complete the modifications to the odor control scrubber system at West Point Plant.
- Install aeration basin covers at South Plant; this project will be completed in 2007.
- Continue to design and implement odor control improvements to conveyance system facilities that are listed in Table 7-1 of this chapter.
- Complete an Odor and Corrosion Control Plan. This plan will identify where odor or corrosion problems are occurring, describe the sources if known, and propose solutions. In the *2004 RWSP Annual Report*, this plan was referred to as the Odor Control Comprehensive Plan.

Visit the Odor Control Program's Web site for more information:

<http://dnr.metrokc.gov/wtd/odorcontrol/>